

Attorney Docket 99-959
U.S. Application No.: 09/597,112

REMARKS

I. Introductory Comments

As a preliminary matter, Applicants thank the Examiner for providing the Office Action and the acknowledgements of allowable subject matter made therein. In the Office Action: (1) claims 11 and 12 were allowed; claims 4-6 and 8-10 were acknowledged to be allowable if rewritten into independent format; the drawings were objected to under 27 CFR 1.83(a) as not showing every feature of the invention specified in claims 11 and 12; and claims 2, 3, and 7 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,966,387 to Cloutier (hereinafter "Cloutier") in view of U.S. Patent No. 6,621,860 to Yamaguchi et al. (hereinafter "Yamaguchi").

Applicants have amended claim 2 and added claims 13-18. Accordingly, after entry of this amendment, claims 2-18 will be pending. Applicants have added new claims 13-18 to reflect the claim limitations of claims 4-6 and 8-10 in independent format. Claim 2 has been amended to more clearly articulate inventive aspects of the invention. Accordingly, Applicants submit that claims 13-18 are in condition for allowance and that amended claim 2 traverses the Examiner's rejection.

A Request for Approval of Drawings Corrections is being filed concurrently with this Amendment to revise Figure 3 to show an electronic communication channel and an electronic controller. No new matter has been entered. Based on the foregoing, Applicants believe that claims 2-18 are in condition for allowance.

II. Allowable Claims

On page 4 of the Office Action, the Examiner indicated that claims 4-6 and 8-10 would be allowable if rewritten into independent format. Applicants kindly thank the Examiner for the allowability of these claims. Accordingly, Applicants have added new claims 13-18 to reflect claims 4-6 and 8-10 rewritten into independent format. Specifically, independent claim 13 includes the claim limitations of claim 4 and the claims from which claim 4 depends. Similarly, independent claim 16 includes the claim limitations of claim 8 and the claims from which claim 8 depends. Therefore, Applicants submit that claims 13-18 are in condition for allowance.

Attorney Docket 99-959
U.S. Application No.: 09/597,112

III. Objection to the Drawings

On page 2 of the Office Action, the Examiner objected to the drawings under 37 CFR 1.83(a) as not showing every feature of the invention specified in claims 11 and 12. Applicants have reviewed claims 11 and 12 as compared to the drawings and cannot readily discern the features of claim 11 to which the Examiner is referring. Applicants submit that the features recited in claim 11 are shown in the drawings. If the Examiner believes otherwise, Applicants request that the Examiner specifically identify the feature(s) that he believes to be missing from the drawings.

In regards to claim 12, a Request for Approval of Drawing Corrections is being filed concurrently with this Amendment to revise Figure 3 to show an electronic communication channel and an electronic controller. The matter added to Fig. 3 is fully supported in the specification as filed. For example, originally filed claim 12 recites an electronic communication channel and an electronic controller. Based on the foregoing, it is respectfully suggested that the Examiner's objection to the drawings is overcome.

IV. Rejection of Claims 2, 3, and 7 under 35 U.S.C. § 103(a)

On page 3 of the Office Action, claims 2, 3, and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cloutier in view of Yamaguchi. While Applicants believe that claims 2, 3, and 7 include patentable subject matter without amendment, claim 2 has been amended to more clearly articulate inventive aspects of the invention. As amended, claim 2 includes the limitation of "calculating a mean jitter value associated with arrival times of a sample of data packets." None of the references cited in the Office Action, or any combination thereof, would render this claim limitation obvious to one of ordinary skill in the art. The amendments to the claims are fully supported by the specification as originally filed. Therefore, based on the following remarks, Applicants believe that claim 2 and all of its dependent claims (claims 3-10) are in condition for allowance.

A. The cited references do not teach the claim limitation of "calculating a mean jitter value associated with arrival times of a sample of data packets."

In the Office Action, the Examiner acknowledges that Cloutier fails to disclose calculating a mean jitter value associated with a sample of data packets (page 3). The

Attorney Docket 99-959
U.S. Application No.: 09/597,112

Examiner then asserts that Yamaguchi teaches a jitter measuring algorithm for estimating peak-to-peak jitter and RMS jitter, which teaching would have made it obvious to one of skill in the art to modify Cloutier to include a method of measuring the average or mean jitter value so as to minimize the frequency difference or the phase difference in the VCO (voltage-controlled oscillator) clock as taught by Yamaguchi (page 3). However, amended claim 2 further clarifies that Yamaguchi fails to teach a mean jitter value associated with arrival times of a sample of data packets. For example, nowhere does Yamaguchi disclose data packets, let alone arrival times of a sample of data packets.

In contrast to the limitations of claim 2, the teachings of Yamaguchi are directed to algorithms for estimating jitter of a clock generating circuit of a microcomputer (col. 1, lines 9-12 and lines 62-64). In particular, the teachings of Yamaguchi appear to be limited to estimating jitter of a clock waveform generated by a voltage-controlled oscillator (VCO) of the microcomputer (col. 4, lines 61-63). Yamaguchi teaches measuring jitter of a waveform and is not concerned with the jitter associated with arrival times of data packets. Accordingly, Yamaguchi does not teach the claim limitation of calculating a mean jitter value associated with arrival times of a sample of data packets. Therefore, Applicants submit that claim 2 and all of its dependent claims (claims 3-10) are in condition for allowance because it would not have been obvious to one of ordinary skill to modify Cloutier as suggested by the Examiner.

B. There is no motivation to modify Coutier in view of Yamaguchi as suggested in the Office Action.

On page 3 of the Office Action, the Examiner asserts that it would have been obvious to one of skill in the art to modify Cloutier to include a method of measuring the average or mean jitter value so as to minimize the frequency difference or the phase difference in the VCO (voltage-controlled oscillator) clock as taught by Yamaguchi. However, such a modification would not have been obvious because there is no motivation to combine the references. Moreover, Yamaguchi and Cloutier teach away from the modification suggested by the Examiner.

Yamaguchi teaches away from its combination with Cloutier. In particular, Yamaguchi is directed to solving problems associated with measuring jitter of a clock circuit (testing a PLL circuit) in a microcomputer (col. 1, lines 8-12 and 55-64).

Attorney Docket 99-959
U.S. Application No.: 09/597,112

Accordingly, Yamaguchi teaches algorithms for measuring jitter of a waveform clock signal by estimating instantaneous phases of the waveform (col. 10, lines 49-52). In contrast, Cloutier teaches determining jitter associated with data packet stream segments (col. 5, lines 32-59) rather than with a clock waveform.

Cloutier further teaches away from Yamaguchi. While Yamaguchi is directed to measuring jitter of an oscillation waveform of a VCO (Yamaguchi; col. 4, lines 61-63), Cloutier teaches away from using a VCO clock (Cloutier: col. 12, lines 16-20). Instead, Cloutier teaches an independent clock that is not affected by differential delays (col. 10, line 65 – col. 11, line 4). In contrast to Cloutier, Yamaguchi appears to disclose an algorithm for measuring jitter of a VCO of a phase-locked loop (PLL) (Figs. 4, 11, 13, 46, 50; col. 2, lines 12-24). Thus, Cloutier teaches away from Yamaguchi's algorithms for estimating jitter of a VCO. For at least the foregoing reasons, the Office Action fails to establish a *prima facie* case of obviousness because there is no motivation for one of ordinary skill in the art to have modified Cloutier based on Yamaguchi as suggested by the Examiner. Therefore, Applicants submit that claim 2 and all of its dependent claims (claims 3-10) are in condition for allowance.

Attorney Docket 99-959
U.S. Application No.: 09/597,112

CONCLUSION

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance, and a Notice to that effect is earnestly solicited.

Any fees associated with the filing of this paper should be identified in any accompanying transmittal. However, if any additional fees are required, they may be charged to Deposit Account 07-2347. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, and the petition fee should be charged to the foregoing deposit account..

Respectfully submitted,

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